

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS  
DIVISION OF AGRICULTURAL ENGINEERING

S. H. MCCORRY, CHIEF

MONTHLY NEWS LETTER

MARCH 20, 1928

DR. FRANK HUNTINGTON, FOR MANY YEARS A VALUED MEMBER OF THE STAFF OF THIS DIVISION, DIED ON FEBRUARY 27 AT ST. VINCENT HOSPITAL, JACKSONVILLE, FLORIDA. AT THE TIME OF HIS DEATH, DR. HUNTINGTON WAS ENROUTE TO CUBA IN HOPE THAT A TROPICAL CLIMATE WOULD HAVE A BENEFICIAL EFFECT ON HIS HEALTH.

BORN JULY 14, 1848 AT ROCHESTER, NEW YORK, DR. HUNTINGTON WAS A GRADUATE OF THE UNIVERSITY OF ROCHESTER AND TOOK POST GRADUATE WORK AT THE COLUMBIA COLLEGE LAW SCHOOL, NEW YORK CITY, AND THE UNIVERSITY OF BERLIN, GERMANY. HE WAS ON THE STAFF OF JOHNSON'S CYCLOPEDIA DURING ITS PREPARATION. HE HAD CHARGE OF A DEPARTMENT OF D. APPLETON & CO., FROM 1874 TO 1901. DURING THIS TIME HE WAS ALSO ON THE STAFF OF D. APPLETON & CO., CYCLOPEDIA OF AMERICAN BIOGRAPHY AND ALSO ON THAT OF THE STANDARD DICTIONARY PUBLISHED BY FUNK & WAGNALLS. HE CONTRIBUTED NUMEROUS ARTICLES TO TRADE PAPERS AND TO SUNDAY EDITIONS OF DAILY PAPERS AND MAGAZINES.

DR. HUNTINGTON CAME TO WASHINGTON IN 1902 TO ASSIST IN THE COMPILATION OF A DICTIONARY OF AMERICAN INDIANS FOR THE BUREAU OF ETHNOLOGY. FOLLOWING THIS HE ASSISTED DR. FEWKES OF THE BUREAU OF ETHNOLOGY IN THE PREPARATION OF A REPORT ON THE ANTIQUITIES OF PORTO RICO. HE WAS THEN APPOINTED AS AN EDITORIAL ASSISTANT IN THE CENSUS BUREAU AND IN 1907, TRANSFERRED TO THE DEPARTMENT OF AGRICULTURE, HE WAS ENGAGED IN MAKING TRANSLATIONS AND ABSTRACTS OF FOREIGN LANGUAGE SCIENTIFIC PAPERS. HE WAS ENGAGED CONTINUOUSLY IN THIS WORK UNTIL A FEW WEEKS BEFORE HIS DEATH. DR. HUNTINGTON IS SURVIVED BY THREE SISTERS.

A LINGUIST OF RARE ABILITY DR. HUNTINGTON TRANSLATED WITH EASE SCIENTIFIC ARTICLES OF A HIGHLY TECHNICAL CHARACTER IN FRENCH, GERMAN, SPANISH, ITALIAN AND RUSSIAN. IN SPITE OF HIS ADVANCED AGE AND DECLINING HEALTH, HIS MIND REMAINED UNIMPAIRED TO THE LAST. HIS FAITHFULNESS TO DUTY WAS ONE OF DR. HUNTINGTON'S OUTSTANDING CHARACTERISTICS.







.....  
:  
: EMPLOYEES ARE CAUTIONED AGAINST MOVING, FOR :  
: THEIR OWN CONVENIENCE, A PERSONALLY-OWNED AUTOMOBILE :  
: FROM HEADQUARTERS OR PLACE OF RESIDENCE, WITH THE EX- :  
: PECTATION THAT IT CAN LATER BE RETURNED, OR MOVED ELSE- :  
: WHERE, UNDER AUTHORIZATION AS AN OFFICIAL MEANS OF :  
: TRANSPORTATION AT A MILEAGE RATE. EXCEPT IN CASE OF :  
: EMERGENCY, NO CONSIDERATION WILL BE GIVEN TO AN APPLI- :  
: CATION FOR SUCH AUTHORITY MADE AFTER THE AUTOMOBILE :  
: HAS BEEN MOVED FROM HEADQUARTERS OR PLACE OF RESIDENCE :  
:  
: S. H. McCrory :  
:.....

THE PRINCIPAL EVENTS OF THE MONTH IN WASHINGTON WERE THE RESPECTIVE MEETINGS OF THE ADVISORY COUNCIL OF MECHANICAL FARM EQUIPMENT RESEARCH SURVEY, AND THE ADVISORY COMMITTEE OF THE COLLEGE DIVISION, A. S. A. E. THE FIRST-NAMED MEETING WAS HELD FEBRUARY 28 AND ATTENDED BY SOME 25 LEADERS IN THE SUBJECT OF RESEARCH IN MECHANICAL FARM EQUIPMENT, REPRESENTING BOTH THE MANUFACTURING INDUSTRY AND THE AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS. THE SPECIFIC PURPOSE OF THIS MEETING WAS TO CONSIDER A REPORT PREPARED BY H. B. WALKER, WHO SUCCEEDED PROFESSOR J. B. DAVIDSON AS DIRECTOR OF THE SURVEY, AND WHO HAD BEEN GIVING THE PROJECT HIS FULL ATTENTION FOR THE PAST YEAR. AT THE CONCLUSION OF THE MEETING THE COUNCIL CONFERRED WITH THE SECRETARY OF AGRICULTURE. PROFESSOR WALKER'S REPORT, IT IS HOPED, WILL BE PRINTED AS A BULLETIN OF THE DEPARTMENT. IT CONTAINS A RATHER COMPLETE DISCUSSION OF THE PRESENT STATUS OF FARM EQUIPMENT RESEARCH AND RESEARCH AGENCIES, AND MAKES SPECIFIC RECOMMENDATIONS FOR FURTHER PROCEDURE IN RESEARCH. THE COUNCIL VOTED TO PERPETUATE ITSELF, SUBJECT TO THE APPROVAL OF THE SECRETARY, WHICH APPROVAL WAS FORTHCOMING. THE SECRETARY ALSO APPROVED THE COUNCIL RECOMMENDATION THAT THE GENERAL PROJECT OF PUSHING MECHANICAL FARM EQUIPMENT RESEARCH BE CONTINUED UNDER THE GUIDANCE OF THIS DIVISION, BUT WITHOUT THE APPOINTMENT OF ANY DIRECTOR TO ACT IN THE SENSE IN WHICH PROFESSORS DAVIDSON AND WALKER HAVE FUNCTIONED.

THE MEETING OF THE ADVISORY COMMITTEE, COLLEGE DIVISION, A. S. A. E. WAS IN CONTINUATION OF A POLICY THAT HAS BEEN IN EFFECT FOR SEVERAL YEARS. IT WAS HELD FEBRUARY 29 AND MARCH 1 AND WAS, AS HERETOFORE, DEVOTED TO A DISCUSSION OF THE PROBLEMS OF COLLEGE HEADS OF DEPARTMENTS OF AGRICULTURAL ENGINEERING.

DEAN W. BLOODGOOD HAS SUBMITTED THE FOLLOWING STATEMENT CONCERNING RESULTS OF GROUND WATER STUDIES IN THE MIDDLE RIO GRANDE VALLEY, NEW MEXICO, MADE IN COOPERATION WITH THE NEW MEXICO AGRICULTURAL EXPERIMENT STATION:

ONE THOUSAND, ONE HUNDRED AND FIVE OBSERVATION DRAINAGE TEST WELLS WERE INSTALLED IN COOPERATION WITH THE NEW MEXICO AGRICULTURAL EXPERIMENT STATION. THE WELLS COVERED APPROXIMATELY 150 MILES OF THE VALLEY AND THE STUDIES WERE MADE ON ABOUT 200,000 ACRES, MOST OF WHICH WAS IN NEED OF DRAINAGE. THE STUDIES INDICATED THAT THE BELT OF WATER TABLE FLUCTUATION WAS NARROWER IN THE DEEPER WATER TABLES THAN IN THE SHALLOW ONES. SOIL







STRUCTURE AND TEXTURE HAVE A TENDENCY TO REGULATE THE BEHAVIOR OF THE FLUCTUATION OF THE WATER TABLE. IN TIGHT SOILS THE FLUCTUATION IS MUCH LESS THAN IN THE MORE POROUS SOILS. THE WATER TABLE CONFORMS RATHER CLOSELY TO SURFACE TOPOGRAPHY, REGARDLESS OF SOIL TEXTURE. WATER TABLES APPEAR TO FLATTEN OUT IN THE MORE POROUS SOILS. THE WATER TABLE IS DEEPER IN THE HEAVIER SANDY LOAM SOILS THAN IN THE SANDY SOILS. THE CRESTS AND TROUGHS OF THE LATERAL UNDERGROUND WATER TABLE ARE SPACED AT MORE UNIFORM INTERVALS IN THE MORE POROUS SOILS THAN IN THE TIGHTER TEXTURED SOILS.

THE DAILY BELT OF WATER FLUCTUATION AVERAGES ABOUT 0.20 FEET AND THE DAILY WATER TABLE IS HIGHEST AT 8 O'CLOCK IN THE MORNING AND LOWEST AT 4 O'CLOCK IN THE AFTERNOON. THE AVERAGE BELT OF WATER TABLE FLUCTUATION IS 2.41 FEET. THE DEPTH TO THE AVERAGE WATER TABLE IS 2.50 FEET, WHILE THE AVERAGE DEPTH TO THE HIGHEST WATER TABLE IS 1.30 FEET.

PRECIPITATION, EVAPORATION, AND TEMPERATURE APPEAR TO HAVE LITTLE INFLUENCE ON THE DAILY BEHAVIOR OF THE WATER TABLE. THE AVERAGE ANNUAL PRECIPITATION IS 9.34 INCHES, AVERAGE EVAPORATION IS 81 INCHES FROM A FREE WATER SURFACE, THE AVERAGE MEAN MAXIMUM TEMPERATURE IS 72 DEGREES AND THE MEAN MINIMUM TEMPERATURE IS 40 DEGREES.

THERE IS A DIRECT RELATION BETWEEN THE RIVER DISCHARGE OF THE RIO GRANDE AND THE FLUCTUATION OF THE WATER TABLE, INDICATING THAT PRACTICALLY ALL OF THE SEEPAGE WATER COMES FROM THE RIVER.

W. W. McLAUGHLIN VISITED POINTS IN OREGON TO GO OVER THE PROPOSED FINANCIAL REORGANIZATION OF GRANTS PASS IRRIGATION DISTRICT WITH THE STATE ENGINEER AND OTHERS.

O. A. FARIS, WORKING UNDER THE DIRECTION OF R. G. HEMPHILL, COMPLETED LABORATORY WORK ON SOME SAMPLES OF SILT TAKEN FROM THE BOTTOM OF MEDINA LAKE, TEXAS, FROM ITS HEAD TO THE DAM. RESULTS SHOWED THAT THE DEPOSIT IN ALL SECTIONS OF THE RESERVOIR IS SO FINE THAT MORE THAN 99.5 PER CENT OF IT WILL PASS THROUGH A 300-MESH SCREEN.

DURING THE MONTH OF FEBRUARY, J. C. MARR VISITED THE LA FERIA IMPROVEMENT DISTRICT AT LA FERIA, TEXAS IN ORDER TO ASSIST THE OFFICERS IN THE FORMULATION OF PLANS FOR DRAINING CERTAIN AREAS OF THE DISTRICT BY PUMPING FROM WELLS. HE ALSO STOPPED AT EAGLE PASS, TEXAS TO CONFER WITH W. L. ROCKWELL REGARDING GENERAL DRAINAGE PROBLEMS OF THE LOWER RIO GRANDE VALLEY.

CARL ROHWER REPORTS THAT THE RESULTS OF THE EXPERIMENTS ON THE EVAPORATION FROM ICE AND FROM A HEATED WATER SURFACE IN WINTER SHOW THAT DALTON'S LAW HOLDS, EVEN FOR THESE EXTREME CONDITIONS.

THE EXPERIMENTS ON THE EFFECT OF TEMPERATURE ON THE EVAPORATION EQUIPMENT MADE ON A TANK WITH THE WATER SURFACE COVERED WITH OIL TO ELIMINATE THE EVAPORATION BROUGHT OUT THE FACT THAT SO-CALLED NON-VOLATILE OILS LOSE A MEASURABLE QUANTITY BY EVAPORATION, AND THAT THIS LOSS AMOUNTS TO ABOUT TWO PER CENT OF THE EVAPORATION FROM A WATER SURFACE UNDER SIMILAR CONDITIONS.

A. A. YOUNG SPENT ABOUT THREE WEEKS IN SOUTHERN NEVADA WITH W. L. STOCKWELL IN COMPLETING THE MUDDY VALLEY INVESTIGATION. THIS WORK INCLUDED A LAND CLASSIFICATION SURVEY OF 9,000 ACRES FOR THE PURPOSE OF DETERMINING THE ACREAGE OF BOTH IMPROVED, UNIMPROVED, AND ALKALI COVERED LAND. A PORTION OF THE VALLEY HAS A HIGH WATER TABLE AND FULLY HALF OF IT IS STRONGLY ALKALINE.



THE  
LIBRARY  
OF THE  
MUSEUM OF  
ART AND  
ARCHITECTURE  
NEW YORK



DRAINAGE CONDITIONS COULD BE IMPROVED BY DEEPENING THE MAIN DRAINAGE CHANNEL IN CERTAIN SHALLOW SECTIONS. ABOUT ONE-HALF THE VALLEY IS COVERED WITH NATIVE BRUSH AND HAS NO WATER RIGHT.

THE BERKELEY OFFICE HAS RECEIVED REPORTS ON: "FINANCIAL SETTLEMENTS OF DEFAULTING IRRIGATION ENTERPRISES," BY WELLS A. HUTCHINS, AND "A DRAINAGE RECONNAISSANCE OF THE GRANDE RONDE VALLEY, UNION COUNTY, OREGON," BY T. C. ADAMS.

G. R. BOYD HAS BEGUN AN EXTENSIVE FIELD TRIP, THE FIRST PART OF WHICH WILL BE DEVOTED TO THE TREE-POISONING PROJECT IN MISSISSIPPI. ASSISTED BY B. S. CLAYTON HE WILL DO SOME STUMP BLASTING ON TREES THAT PREVIOUSLY HAD BEEN POISONED, TO DETERMINE THE EFFECT OF THE POISONING FROM A BLASTING STANDPOINT. BEGINNING MARCH 26, MR. BOYD WILL CONDUCT A SERIES OF LECTURES ON LAND CLEARING AT THE MICHIGAN AGRICULTURAL COLLEGE IN CONNECTION WITH THE SHORT COURSE FOR FARMERS. LATER MR. BOYD WILL VISIT THE BARKSDALE PYROTAL CARTRIDGING PLANT AND ARRANGE FOR THE CLOSING DOWN OF OPERATIONS.

AGRICULTURAL PYROTOL SHIPMENTS HAVE CEASED AT ALL POINTS EXCEPT BARKSDALE, WISC. IT IS EXPECTED THAT CARTRIDGING AT BARKSDALE WILL BE COMPLETED MARCH 27 AND THAT SHIPMENTS FROM THAT POINT WILL BE COMPLETED BY THE MIDDLE OF APRIL. THIS WILL END THE ACTIVITIES WITH REFERENCE TO THE DISTRIBUTION OF WAR SURPLUS EXPLOSIVES.

W. V. HUKILL IS COMPLETING A SERIES OF TRIPS BETWEEN POINTS IN WASHINGTON STATE AND EASTERN MARKETS, ACCOMPANYING FRUIT SHIPMENTS OVER THE NORTHERN ROUTE IN CONNECTION WITH COOPERATIVE EXPERIMENTS WITH THE BUREAU OF PLANT INDUSTRY ON INSULATING CARS AGAINST THE ACTION OF FROST.

C.E. RAMSER HAS BEEN MAKING FURTHER STUDIES IN CONNECTION WITH THE CACHE RIVER IN SOUTHERN ILLINOIS AT THE REQUEST OF THE DISTRICT OFFICIALS. SOME YEARS AGO MR. YARNELL MADE A SURVEY AND RECOMMENDATIONS FOR WORK ALONG THIS STREAM. THE COMMISSIONERS NOW WISH TO DO SOME FURTHER CONSTRUCTION AND REQUEST HIS ASSISTANCE IN THIS CONNECTION.

A.H. SENNER HAS JUST COMPLETED PLANS AND SPECIFICATIONS FOR HEATING AN EXPERIMENTAL TERRAPIN HOUSE OF THE BUREAU OF FISHERIES. THIS TERRAPIN HOUSE, LOCATED AT BEAUFORT, N.C., WILL HAVE AUTOMATICALLY CONTROLLED ROOM TEMPERATURE. THE HEATING PLANT CONTEMPLATED IS A SINGLE RISER, LOW-PRESSURE STEAM JOB DESIGNED TO OPERATE ON A FEW OUNCES PRESSURE. THE BOILER IS TO BE A MAGAZINE-FEED, BUCKWHEAT ANTHRACITE BURNER.

M.C. BETTS HAS RECENTLY RETURNED FROM A TRIP TO MELFA, VA., WHERE HE WENT TO SUPERVISE THE CLOSING OF THE SWEET POTATO STORAGE INVESTIGATIONS CONDUCTED BY M.A.R. KELLEY, DURING THE PAST STORAGE SEASON. IT IS BELIEVED THAT SOME VALUABLE INFORMATION HAS BEEN SECURED FROM THIS INVESTIGATION REGARDING THE CONTROL OF TEMPERATURES IN SWEET POTATO STORAGE HOUSES.

J. T. BOWEN MADE A TRIP TO THE LIVE STOCK EXPERIMENT STATION AT NEW IBERIA, LA., AND TO THE COASTAL PLAINS EXPERIMENT STATION AT MCNEILL, MISS., WHERE HE INSPECTED THE ELECTRICAL EQUIPMENT AND GAVE ADVICE REGARDING THE INSTALLATION OF A TREATING SYSTEM FOR THE DOMESTIC WATER SUPPLY AND A PUMPING PLANT FOR FIRE PROTECTION.



TO THE DIRECTOR, FBI  
FROM THE SAC, NEW YORK  
SUBJECT: [Illegible]

RE NEW YORK TELETYPE TO BUREAU, APRIL 10, 1964.  
[Illegible text follows]

ON APRIL 10, 1964, [Illegible]  
[Illegible text follows]

IT IS REQUESTED THAT YOU [Illegible]  
[Illegible text follows]

VERY TRULY YOURS,  
[Illegible signature]

ENCLOSURE  
[Illegible text follows]

THAT TO [Illegible]  
[Illegible text follows]

THE [Illegible]  
[Illegible text follows]